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EXAMINER

SCHULTZ, WILLIAM C

ART UNIT

PAPER NUMBER

2664

DATE MAILED: 09/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/231,833

Applicant(s)

WU, CHIUNG-SHIEN

Examiner

William C. Schultz

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1,6,8,9,11,21,31 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amended limitation, "TDMA uplinks and TDMA down links" is not supported by the specification. From page 19 of the specification the Examiner notes that fig. 10 corresponds to the independent claims. Lines 1-10 of page 19 disclose the uplinks and down links are comprised of wideband CDMA and FDMA. TDMA uplinks and downlinks are not disclosed. No other place in the spec describes the uplink and downlink channels. In fact, from the spec, the Examiner would guess that the uplinks are wideband CDMA links on one spread frequency channel, the access request links are CDMA links on another spread frequency channel, same with the paging channel.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5,7,9-16,18,19-25,27,29-30 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Quick, Jr. [U.S. Pat. 5,673,259].

Regarding claims 1,11,21, Quick, Jr. discloses all the following subject matters: A multi-channel communication system for data communication comprising: a first station; a plurality of second stations; and medium access control means for controlling operation of said data communication via one or more time division multiple access (TDMA) up links and TDMA down links between said first station and said second stations, said operation comprising: transmitting, from said second stations, one or more request packets to said first station via said one or more TDMA up links, each of said one or more access request packets being time multiplexed with a data part into said one or more TDMA up links, and transmitting, from said first station, one or more code assignment commands to one or more of said second stations via said one or more TDMA down links. **(figures 1,2,10,12A,13A)**

Regarding claims 2,12,22, Quick, Jr. further discloses said communication system is a wireless system, said first station is a base station and said second stations are mobile stations. **(figure 1)**

Regarding claims 3,13,23, Quick, Jr. further discloses said padding code comprises a dummy data code and an error detection code for collision detection by said first station. **(figure 8, part 804)**

Regarding claims 4,14,24, Quick, Jr. further discloses said padding code is selected based on a random selection of said preamble code. **(col. 17, lines 58-68; col. 18, lines 1-4)**

Regarding claims 5,15,25, Quick, Jr. further discloses a predetermined number of said preamble codes transmitted by said second stations is processed by said first station. **(col. 17, lines 16-18)**

Regarding claims 7,17,27 Quick, Jr. further discloses a first one of said second stations performs a random access attempt by transmitting a first one of said one or more request packets including a preamble code  $p_i$ ; and a padding code encoded by a scrambling code  $S_i$ ; and if said first station correctly receives said preamble code  $P_i$  and said padding code without error, said first station sends a code assignment command indicating that said random access attempt of said first one of said second stations is successful. **(figure 13A)**

Regarding claims 9,19,29, Quick, Jr. further discloses if said first station determines that there are greater than  $m$  of said request packets correctly received from said second stations, said first station transmits said code assignment commands to authorize only  $m$  of said second stations to transmit said data packets to said first station. **(col. 17, lines 1-8)**

Regarding claims 10,20,30, Quick, Jr. further discloses selection of said scrambling code  $s_i$  is determined by said preamble code  $p_i$  in accordance with a one-to-one mapping of function  $g: P \rightarrow Y, g(p_i) = s_i, i = 0 \dots 15$  where  $P$  represents the set of all preamble codes and  $Y$  represents the set of all scrambling codes. **(col. 13, lines 7-32)**

### ***Claim Rejections - 35 USC § 103***

Claims 6,8,16,18,26,28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quick, jr.[U.S. Pat. 5,673,259] as applied to claim 1 above, and further in view of TIA/EIA/IS-95-A.

Regarding claims 6,8,16,18,26,28, Quick, jr. discloses generating the data scrambling code but fails to disclose j, m, and r.

TIA/EIA/IS-95-A discloses the algorithm for generating a random scrambling code and defines the values of j, m, r. j represents a sequence number that indicates a particular time-offset in a number of timeoffsets in a predetermined frame period(7.1.3.2.1). m represents a number of said code assignment commands (**CAC is a preamble code 1-16, instant app spec pg.21. In TIA/EIA/IS-95-A 6.1.3.1.7.1-1 shows 16 power control groups, each corresponds to a channel, hence a CAC.**) r represents a sequence number that indicates in the CAC sequence the position of the CAC which contains the preamble code P (**6.1.3.1.7.2, last 14 bits is the PILOT\_PN from figure 7.1.3.4.6-1 which contains the index into the sequence, the CAC**).

It would be obvious to one skilled in the art at the time of invention to modify Quick, Jr. via the IS-95-A spec so that compatability could be obtained with global standards.

### ***Response to Arguments***

Applicant's arguments filed 6/14/2002 have been fully considered but they are not persuasive.

**1. “Quick, jr. and TIA/EIA/IS-95A ... are fundamentally different from the present application”, aka non-analogous art:**

As pointed out from the 112 1<sup>st</sup> rejection of the amended claims, the Examiner believes that the present application is in fact a CDMA/FDMA hybrid type invention. Using CDMA type references is proper.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Schultz whose telephone number is 703-305-2367. The examiner can normally be reached on M-F(7-4)(first bi-week) M-Th(7-4)(second bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-9508 for regular communications and 703-305-9000 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

William Schultz  
August 26, 2002

  
WELLINGTON CHIN  
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